

CLAIMS:

1. An array (10) of MRAM-cells (12) provided with a security device (14) for destroying data stored in the MRAM-cells (12) when the array is subject to tampering, wherein the security device (14) is a magnetic device.

5 2. An array (10) of MRAM-cells (12) according to claim 1, wherein the security device (14) comprises a magnetic field source (16) in combination with a first soft-magnetic flux-closing layer (18).

10 3. An array (10) of MRAM-cells (12) according to claim 2, wherein the magnetic field source (16) is a permanent magnet.

4. An array (10) of MRAM-cells (12) according to claim 2, wherein the magnetic field source (16) is an electromagnet.

15 5. An array (10) of MRAM-cells (12) according to any of the previous claims, wherein the security device (14) is built near the array (10) of MRAM-cells (12).

20 6. An array (10) of MRAM-cells (12) according to any of the previous claims, the array (10) being built on a substrate (24), wherein the security device (14) is built at the same side of the substrate (24) as the MRAM-cells (12).

7. An array (10) of MRAM-cells (12) according to any of the claims 1 to 5, the array (10) being built on a substrate (24), wherein the security device (14) is built at the opposite side of the substrate (24) as the MRAM-cells (12).

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8. An array (10) of MRAM-cells (12) according to any of claims 2 to 7, wherein the first soft-magnetic flux-closing layer (18) is so as to separate from the magnetic field source (16) when the array (10) of MRAM-cells (12) is tampered with.

9. An array (10) of MRAM-cells (12) according to any of the previous claims, wherein the security device (14) furthermore comprises a magnetic field shaping device.

10. An array of MRAM-cells (12) according to claim 9, wherein the magnetic field shaping device is a second soft-magnetic layer (22), the magnetic field source (16) and first soft-magnetic layer (18) being located adjacent the array (10) of MRAM-cells (12) at one side, and the second soft-magnetic layer (22) being located adjacent the array (10) of MRAM-cells (12) at the opposite side thereof.

10 11. An array (10) of MRAM-cells (12) according to any of claims 2 to 10, wherein the first soft-magnetic layer (18, 26) and/or the second soft-magnetic layer (22) are part of a shielding layer of the MRAM-array (10).

12. A method for protecting from unauthorised read-out an array (10) of MRAM-cells (12) having a data content, the method comprising automatically destroying the data content of at least some of the MRAM-cells (12) by a magnetic field when the array (10) is tampered with.

13. A method according to claim 12, wherein the magnetic field is generated at the MRAM-cells (12) by separating a soft-magnetic flux-closing layer (18, 26) from a magnetic field source (16, 28).

14. A method according to any of claims 12 or 13, wherein the magnetic field at the MRAM-cells (12) is enhanced by a magnetic field shaping device (22) located adjacent the array (10) of MRAM-cells (12).